

Please type a plus (+) sign in this box →

+

PTO/SB/05 (4/98)
Approved for use through 09/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY

PATENT APPLICATION TRANSMITTAL

(Only for new non-provisional applications under 37 C.F.R. § 1.53(B))

Attorney Docket No.

03-1098/L13.12-0252

First Inventor or Application Identifier

Arun Ramakrishnan et al.

Title

ROUTING SCHEME FOR DIFFERENTIAL PAIRS IN
FLIP CHIP SUBSTRATES

Express Mail Label No.

EV241979242US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

Address To:

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

1. ☒ *Fee Transmittal Form e.g., PTO/SB17)
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Sheets **28**]
(preferred arrangement set forth below)
 - Descriptive title of the Invention)
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. § 113) [Total Sheets **3**]
4. Oath or Declaration [Total Sheets **3**]
 - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 17 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting
inventor(s) named in the prior application,
see 37 C.F.R. §§1.63(d)(2) and 1.33(b).

*** NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY
FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT
IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).**

5. ☐ Microfiche Computer Program (Appendix)
6. ☐ Nucleotide and/or Amino Acid Sequence Submission
(If applicable, all necessary)
 - a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy (Identical to computer copy)
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☒ Assignment Papers (cover sheet & document(s))
8. ☐ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
9. ☐ English Translation Document
10. ☐ Information Disclosure Statement (IDS/PTO – PTO) ☐ Copies of IDS
11. ☐ Preliminary Amendment
12. ☒ Two Return Receipt Postcards (MPEP 503)
13. ☐ *Small Entity ☐ Statement filed in prior application.
Statement(s) Status still proper and desired
(PTO/SB/09-12)
14. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
15. ☐ Request and Cert. Under 35 USC 122 (Non-Pub)
16. ☒ Other: File Data Sheet

17. If a **CONTINUING APPLICATION**, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation –in part (CIP)

of prior application No: _____

Prior application information:

Examiner _____

Group/Art Unit: _____

FOR CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE

☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name	Timothy R. Croll					
	LSI LOGIC CORPORATION					
Address	1621 Barber Lane					
	M/S D-106					
City	Milpitas	State	CA	Zip Code	95035	
Country	USA	Telephone		Fax		

Name (Print/type)	David D. Brush	Registration No. (Attorney/Agent)	34,557
Signature	<i>David D. Brush</i>	Date	11/24/03

FEE TRANSMITTAL		Complete if Known																																																																																																																																															
		Application No.																																																																																																																																															
		Filing Date	Herewith																																																																																																																																														
		First Named Inventor	Arun Ramakrishnan et al.																																																																																																																																														
		Title	ROUTING SCHEME FOR DIFFERENTIAL PAIRS IN FLIP CHIP SUBSTRATES																																																																																																																																														
		Group Art Unit																																																																																																																																															
		Examiner Name																																																																																																																																															
Total Amount of Payment \$ 986		Atty. Docket Number	03-1098/L13.12-0252																																																																																																																																														
METHOD OF PAYMENT (Check One)		FEE CALCULATION (Continued)																																																																																																																																															
1. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fee required under 37 C.F.R. § 1.16 and 1.17, including any petition fee, and credit any over payments to Deposit Account No. <u>23-1123</u> . Westman, Champlin & Kelly, P.A. 2. <input type="checkbox"/> Check Enclosed		3. ADDITIONAL FEES <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1051</td> <td>130</td> <td>2051</td> <td>65</td> <td>Surcharge - Late filing fee or oath</td> <td></td> </tr> <tr> <td>1052</td> <td>50</td> <td>2052</td> <td>25</td> <td>Surcharge - Late provisional Filing Fee or cover sheet</td> <td></td> </tr> <tr> <td>1053</td> <td>130</td> <td>1053</td> <td>130</td> <td>Non-English specification</td> <td></td> </tr> <tr> <td>1812</td> <td>2,520</td> <td>1812</td> <td>2,520</td> <td>For Filing a Request for Reexamination. (ex parte)</td> <td></td> </tr> <tr> <td>1251</td> <td>110</td> <td>2251</td> <td>55</td> <td>Extension for reply within first month</td> <td></td> </tr> <tr> <td>1252</td> <td>420</td> <td>2252</td> <td>210</td> <td>Extension for reply within second month</td> <td></td> </tr> <tr> <td>1253</td> <td>950</td> <td>2253</td> <td>475</td> <td>Extension for reply within third month</td> <td></td> </tr> <tr> <td>1254</td> <td>1,480</td> <td>2254</td> <td>740</td> <td>Extension for reply within fourth month</td> <td></td> </tr> <tr> <td>1255</td> <td>2,010</td> <td>2255</td> <td>1,005</td> <td>Extension for reply within fifth month</td> <td></td> </tr> <tr> <td>1402</td> <td>330</td> <td>2402</td> <td>165</td> <td>Filing a brief in support of an appeal</td> <td></td> </tr> <tr> <td>1403</td> <td>290</td> <td>2403</td> <td>145</td> <td>Request for oral hearing</td> <td></td> </tr> <tr> <td>1814</td> <td>110</td> <td>2814</td> <td>55</td> <td>Terminal Disclaimer Fee</td> <td></td> </tr> <tr> <td>1452</td> <td>110</td> <td>2452</td> <td>55</td> <td>Petition to Revive - unavoidable</td> <td></td> </tr> <tr> <td>1453</td> <td>1,330</td> <td>2453</td> <td>665</td> <td>Petition to Revive - unintentional</td> <td></td> </tr> <tr> <td>1501</td> <td>1,330</td> <td>2501</td> <td>665</td> <td>Utility/Reissue issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1502</td> <td>480</td> <td>2502</td> <td>240</td> <td>Design issue fee (inc. advance copies)</td> <td></td> </tr> <tr> <td>1460</td> <td>130</td> <td>1460</td> <td>130</td> <td>Petitions to the Commissioner</td> <td></td> </tr> <tr> <td>1807</td> <td>50</td> <td>1807</td> <td>50</td> <td>Petitions related to provisional applications</td> <td></td> </tr> <tr> <td>1806</td> <td>180</td> <td>1806</td> <td>180</td> <td>Submission of Information Disclosure Statement</td> <td></td> </tr> <tr> <td>8021</td> <td>40</td> <td>8021</td> <td>40</td> <td>Recording each patent assignment per property (times number of properties)</td> <td></td> </tr> <tr> <td colspan="6">Other Fee (specify) _____</td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee Paid	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)			1051	130	2051	65	Surcharge - Late filing fee or oath		1052	50	2052	25	Surcharge - Late provisional Filing Fee or cover sheet		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For Filing a Request for Reexamination. (ex parte)		1251	110	2251	55	Extension for reply within first month		1252	420	2252	210	Extension for reply within second month		1253	950	2253	475	Extension for reply within third month		1254	1,480	2254	740	Extension for reply within fourth month		1255	2,010	2255	1,005	Extension for reply within fifth month		1402	330	2402	165	Filing a brief in support of an appeal		1403	290	2403	145	Request for oral hearing		1814	110	2814	55	Terminal Disclaimer Fee		1452	110	2452	55	Petition to Revive - unavoidable		1453	1,330	2453	665	Petition to Revive - unintentional		1501	1,330	2501	665	Utility/Reissue issue fee (inc. advance copies)		1502	480	2502	240	Design issue fee (inc. advance copies)		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Petitions related to provisional applications		1806	180	1806	180	Submission of Information Disclosure Statement		8021	40	8021	40	Recording each patent assignment per property (times number of properties)		Other Fee (specify) _____					
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																												
Fee	Fee	Fee	Fee																																																																																																																																														
Code	(\$)	Code	(\$)																																																																																																																																														
1051	130	2051	65	Surcharge - Late filing fee or oath																																																																																																																																													
1052	50	2052	25	Surcharge - Late provisional Filing Fee or cover sheet																																																																																																																																													
1053	130	1053	130	Non-English specification																																																																																																																																													
1812	2,520	1812	2,520	For Filing a Request for Reexamination. (ex parte)																																																																																																																																													
1251	110	2251	55	Extension for reply within first month																																																																																																																																													
1252	420	2252	210	Extension for reply within second month																																																																																																																																													
1253	950	2253	475	Extension for reply within third month																																																																																																																																													
1254	1,480	2254	740	Extension for reply within fourth month																																																																																																																																													
1255	2,010	2255	1,005	Extension for reply within fifth month																																																																																																																																													
1402	330	2402	165	Filing a brief in support of an appeal																																																																																																																																													
1403	290	2403	145	Request for oral hearing																																																																																																																																													
1814	110	2814	55	Terminal Disclaimer Fee																																																																																																																																													
1452	110	2452	55	Petition to Revive - unavoidable																																																																																																																																													
1453	1,330	2453	665	Petition to Revive - unintentional																																																																																																																																													
1501	1,330	2501	665	Utility/Reissue issue fee (inc. advance copies)																																																																																																																																													
1502	480	2502	240	Design issue fee (inc. advance copies)																																																																																																																																													
1460	130	1460	130	Petitions to the Commissioner																																																																																																																																													
1807	50	1807	50	Petitions related to provisional applications																																																																																																																																													
1806	180	1806	180	Submission of Information Disclosure Statement																																																																																																																																													
8021	40	8021	40	Recording each patent assignment per property (times number of properties)																																																																																																																																													
Other Fee (specify) _____																																																																																																																																																	
FEE CALCULATION		Subtotal (3) \$																																																																																																																																															
1. BASIC FILING FEE <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>770</td> <td>2001</td> <td>385</td> <td><input checked="" type="checkbox"/> Utility Filing Fee</td> </tr> <tr> <td>1002</td> <td>340</td> <td>2002</td> <td>170</td> <td><input type="checkbox"/> Design Filing Fee</td> </tr> <tr> <td>1004</td> <td>770</td> <td>2004</td> <td>385</td> <td><input type="checkbox"/> Reissue Filing Fee</td> </tr> <tr> <td>1005</td> <td>160</td> <td>2005</td> <td>80</td> <td><input type="checkbox"/> Prov. Filing Fee</td> </tr> <tr> <td colspan="5" style="text-align: right;">Subtotal (1) \$ 770</td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1001	770	2001	385	<input checked="" type="checkbox"/> Utility Filing Fee	1002	340	2002	170	<input type="checkbox"/> Design Filing Fee	1004	770	2004	385	<input type="checkbox"/> Reissue Filing Fee	1005	160	2005	80	<input type="checkbox"/> Prov. Filing Fee	Subtotal (1) \$ 770					2. EXTRA CLAIM FEES <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Number Claims</th> <th>Prior**</th> <th>Extra</th> <th>Fee from Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td>32</td> <td>20</td> <td>12</td> <td>18</td> <td>216</td> </tr> <tr> <td>Indep.</td> <td>3</td> <td>3</td> <td>0</td> <td>86</td> <td>0</td> </tr> </tbody> </table>			Number Claims	Prior**	Extra	Fee from Below	Fee Paid	Total	32	20	12	18	216	Indep.	3	3	0	86	0																																																																																					
Large Entity		Small Entity		Fee Description																																																																																																																																													
Fee	Fee	Fee	Fee																																																																																																																																														
Code	(\$)	Code	(\$)																																																																																																																																														
1001	770	2001	385	<input checked="" type="checkbox"/> Utility Filing Fee																																																																																																																																													
1002	340	2002	170	<input type="checkbox"/> Design Filing Fee																																																																																																																																													
1004	770	2004	385	<input type="checkbox"/> Reissue Filing Fee																																																																																																																																													
1005	160	2005	80	<input type="checkbox"/> Prov. Filing Fee																																																																																																																																													
Subtotal (1) \$ 770																																																																																																																																																	
	Number Claims	Prior**	Extra	Fee from Below	Fee Paid																																																																																																																																												
Total	32	20	12	18	216																																																																																																																																												
Indep.	3	3	0	86	0																																																																																																																																												
Multiple Dependent Claims ** Insert 3 and 20, or number previously paid if greater; Reissue see below <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Description</th> </tr> <tr> <th>Fee</th> <th>Fee</th> <th>Fee</th> <th>Fee</th> </tr> <tr> <th>Code</th> <th>(\$)</th> <th>Code</th> <th>(\$)</th> <th></th> </tr> </thead> <tbody> <tr> <td>1202</td> <td>18</td> <td>2202</td> <td>9</td> <td>Claims in excess of 20</td> </tr> <tr> <td>1201</td> <td>86</td> <td>2201</td> <td>43</td> <td>Independent claims in excess of 3</td> </tr> <tr> <td>1203</td> <td>290</td> <td>2203</td> <td>145</td> <td>Multiple Dependent Claims</td> </tr> <tr> <td>1204</td> <td>86</td> <td>2204</td> <td>43</td> <td>Reissue Independent Claims over Original Patent</td> </tr> <tr> <td>1205</td> <td>18</td> <td>2205</td> <td>9</td> <td>Reissue claims in excess of 20 and over original patent</td> </tr> <tr> <td colspan="5" style="text-align: right;">Subtotal (2) \$ 216</td> </tr> </tbody> </table>		Large Entity		Small Entity		Description	Fee	Fee	Fee	Fee	Code	(\$)	Code	(\$)		1202	18	2202	9	Claims in excess of 20	1201	86	2201	43	Independent claims in excess of 3	1203	290	2203	145	Multiple Dependent Claims	1204	86	2204	43	Reissue Independent Claims over Original Patent	1205	18	2205	9	Reissue claims in excess of 20 and over original patent	Subtotal (2) \$ 216																																																																																																								
Large Entity		Small Entity		Description																																																																																																																																													
Fee	Fee	Fee	Fee																																																																																																																																														
Code	(\$)	Code	(\$)																																																																																																																																														
1202	18	2202	9	Claims in excess of 20																																																																																																																																													
1201	86	2201	43	Independent claims in excess of 3																																																																																																																																													
1203	290	2203	145	Multiple Dependent Claims																																																																																																																																													
1204	86	2204	43	Reissue Independent Claims over Original Patent																																																																																																																																													
1205	18	2205	9	Reissue claims in excess of 20 and over original patent																																																																																																																																													
Subtotal (2) \$ 216																																																																																																																																																	

Signature David D. Brush
(David D. Brush)

Reg. No. 34,557

Date 11/24/03

Deposit Account No. 23-1123